

ABSTRACT OF THE DISCLOSURE

Disclosed is an illumination optical system
for illuminating a surface, to be illuminated, with
use of light from a light source, which includes a
5 diffractive optical element for forming a desired
light intensity distribution upon a predetermined
plane, and an angular distribution transforming unit
for transforming an angular distribution of light
incident or to be incident on the diffractive optical
10 element into a desired distribution.

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